

## Claims

1. (Currently amended) A method comprising:  
retrieving state configuration information from a state server of a hardware/software co-simulation, wherein the hardware/software co-simulation simulates a software component of a system being executed and interacting with a hardware component of the system; and  
providing a client of the hardware/software co-simulation access to a server state of the state server based on the state configuration information.
2. (Original) The method of claim 1 wherein the state server defines an address space or a virtual address space in the hardware/software co-simulation.
3. (Original) The method of claim 1 wherein the state configuration information comprises at least one of symbol allocation and symbol type.
4. (Original) The method of claim 1 further comprising:  
registering the client with a co-simulation interface; and  
associating the client with at least one state server in the hardware/software co-simulation.
5. (Original) The method of claim 4 wherein registering the client comprises assigning the client a client identifier.
6. (Original) The method of claim 4 wherein associating the client with at least one state server comprises providing the client with a list of available state servers and one or more address spaces associated with each of the available state server.

7. (Original) The method of claim 6 wherein said client is to retain an identifier for at least one address space from the list.

8. (Original) The method of claim 6 wherein said client is to return a selection from the list and wherein associating the client with at least one state server further comprises providing the client an identifier for at least one address space from the list based on the selection.

9. (Original) The method of claim 1 wherein the state server comprises an instruction set simulator (ISS) and a bus interface model (BIM).

10. (Original) The method of claim 1 further comprising:  
requesting the state configuration information, said state configuration information to define at least one memory location comprising the server state.

11. (Original) The method of claim 10 wherein requesting the state configuration information comprises:

receiving a client identifier for the client at a co-simulation interface;  
receiving an identifier for an address space at the co-simulation interface, said server state being within the address space; and  
issuing a request from the co-simulation interface, said request including the client identifier and the identifier for the address space.

12. (Original) The method of claim 11 wherein the request is to be serviced by the state server, said state server to access a symbol table indicated by the identifier for the address space and to provide the state configuration information based on the symbol table.

13. (Original) The method of claim 11 where a path of the request comprises a hardware kernel, a bus interface module within a logic simulator, an interprocess connection, a co-simulation manager within a software kernel, an instruction set simulator, and a debugger.

14. (Original) The method of claim 1 wherein providing the client access comprises:  
performing a memory operation on at least one memory location based on the state configuration information.

15. (Original) The method of claim 14 wherein performing the memory operation comprises at least one of:

- reading the server state;
- modifying the server state;
- receiving the server state at a predetermined future time; and
- receiving notification upon a predetermined action on the server state.

16. (Original) The method of claim 14 wherein performing the memory operation comprises:

- generating a request for the memory operation, said request including a memory allocation from the state configuration information;
- accessing a memory map; and
- issuing the memory operation to a unified memory for the hardware/software co-simulation based on the memory allocation and the memory map.

17. (Original) The method of claim 16 further comprising:  
receiving data in response to the memory operation; and  
interpreting the data based on a symbol type defined by the state configuration  
information.

18. (Original) The method of claim 1 further comprising:  
receiving stimulus based on the server state; and  
applying the stimulus to the hardware/software co-simulation.

19. (Original) The method of claim 18 wherein the stimulus comprises data to be  
injected into the hardware/software co-simulation in response to a predetermined condition  
associated with the server state.

20. (Currently amended) A method comprising:  
accessing a software state from a hardware simulation process in a hardware/software co-  
simulation, wherein the hardware/software co-simulation simulates a software component of a  
system being executed and interacting with a hardware component of the system.

21. (Currently amended) A machine readable storage medium having stored thereon machine executable instructions, execution of said machine executable instructions to implement a method comprising:

retrieving state configuration information from a state server of a hardware/software co-simulator, wherein the hardware/software co-simulator simulates a software component of a system being executed and interacting with a hardware component of the system; and

providing a client of the hardware/software co-simulator access to a server state of the state server based on the state configuration information.

22. (Currently amended) A machine readable storage medium having stored thereon machine executable instructions, execution of said machine executable instructions to implement a method comprising:

accessing a software state from a hardware simulation process in a hardware/software co-simulation, wherein the hardware/software co-simulation simulates a software component of a system being executed and interacting with a hardware component of the system.

23. (Currently amended) An apparatus comprising:

a hardware/software co-simulator to retrieve state configuration information from a state server, wherein the hardware/software co-simulator is configured to simulate a software component of a system being executed and interacting with a hardware component of the system; and

a unified memory store, said hardware/software co-simulator to provide a client access to a server state of the state server within the unified memory store based on the state configuration information.

24. (New) The method of claim 1, wherein the hardware/software co-simulation simulates the software component being executed by a microprocessor.

25. (New) The method of claim 9, wherein the ISS and the BIM simulate a microprocessor, the ISS executing instructions and the BIM representing input and output behavior as pin signals on a bus.